

T-O-P S-E-C-R-E-T

TS# 185978

CENTRAL INTELLIGENCE AGENCY
OFFICE OF NATIONAL ESTIMATES

10 December 1966

MEMORANDUM

SUBJECT: SOVIET REACTIONS TO A US DECISION TO DEPLOY ABM DEFENSES

I. GENERAL CONSIDERATIONS

1. The Soviet leadership would recognize in a US decision to deploy an ABM system a major move in the Soviet-American power competition. The USSR is very sensitive to US economic and military superiority; it is acutely aware that the US has a GNP more than twice that of the Soviets and now has in numbers of deployed ICBMs roughly a 3 to 1 superiority. The Soviets have recently been engaged in a very rapid buildup of hardened and dispersed ICBMs which we believe will give them, by about 1968, much greater confidence in their retaliatory power and hence in their deterrent. Since 1962, moreover, they have been constructing an ABM system to

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defend the Moscow area, though we in CIA believe they have probably not yet begun to install ABM defenses elsewhere.^{1/ 2/}

2. We believe that the fact of the US decision to deploy ABMs would be far more important to the Soviets than would the announced size of the US program.^{3/} The Soviets certainly have considered in their military planning the possibility that the US would eventually build ABM defenses. But an actual decision to deploy an ABM system would probably have a further influence on Soviet policy because it is a major new program with potential impact on the strategic situation. The US decision would tend to lend weight to interests in the USSR which press for larger military programs.

^{1/} There is, however, a differing view within the intelligence community, which is that another system (the Tallinn system) now being widely deployed in the USSR is likely to be an ABM; the implication of this view is that the Soviets are already several years down the road of widespread ABM deployment.

^{2/} See NIE 11-8-66, "Soviet Capabilities for Strategic Attack," dated 20 October 1966 and NIE 11-3-66, "Soviet Air and Missile Defenses," dated 17 November 1966.

^{3/} We refer here to the Posture A and Posture B programs which have been considered by the Secretary of Defense. Both programs contemplate ABM deployment for defense of key US cities; they differ in the level of defense to be provided.

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3. The Soviets would almost certainly see the US decision as having been at least accelerated by their own recent programs for missile defense and strategic attack forces. In any event, they would view it as evidence that the US was intent on maintaining and perhaps increasing its strategic advantage over the USSR, even at the expense of a continuation of the arms race. Some elements in the Soviet leadership would see the move as a sign that the US considered nuclear war somewhat more likely over the longer term. Associated US expenditures for a shelter program would probably strengthen the voice of those Soviets advocating this interpretation.

II. POSSIBLE SOVIET MILITARY RESPONSES

4. It is important to remember that Moscow's view of the strategic situation is the obverse of the view from Washington. While we worry about their strengths and our vulnerabilities, they worry about our strengths and their vulnerabilities. The Soviets have long been deterred from deliberately attacking the US by the power of our forces to visit unacceptable damage on their country in retaliation; they have also long feared that their own strength

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might not be credible enough to deter the US in all circumstances. Faced over the last two decades with the large, diversified, and steadily-improving US strategic attack forces, a major feature of the Soviet response has been straightforward defense measures, whereas our strategy has concentrated mainly on assured destruction. In the past year or so, however, the Soviets have begun the very rapid deployment of hardened and dispersed ICBMs, the bulk of which are SS-11's, useful mainly as citybusters. This intensive program to acquire an assured destruction capability represents a new emphasis in their strategy. They probably now see themselves as catching up with the US in this regard, and expect shortly to gain a kind of deterrent equality with the US.

5. At minimum, therefore, the Soviets will be concerned to prevent any US ABM deployment from robbing them of the assured destruction capabilities they are acquiring. From their point of view, either the Posture A or the Posture B program would threaten eventually to degrade the deterrent power of their strategic attack

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forces. This is because both programs are damage-limiting in nature -- that is, they are designed to protect the population and property in major cities, which are the prime targets of retaliation -- and because the smaller program, once initiated, could well lead to the larger. The Soviets would consider it essential to respond by improving their strategic attack forces to the extent required to maintain their assured destruction capabilities.

6. This Soviet requirement would probably not result in any immediate or dramatic changes in the USSR's strategic attack programs following a US announcement. The USSR would have time to weigh the alternatives, because the lead-times required to deploy additional strategic attack systems like ICBMs, or to develop and retrofit advanced components like penetration aids, are not longer and in many cases are shorter than ABM lead-times. The Soviets would have no difficulty in following the progress of our deployment and could plan to reevaluate the numbers and types of weapons they require accordingly. *

* There is even a possibility that Soviet planning has already taken full account of the contingency that the US would deploy ABMs, and that the Soviets would therefore not feel the need to alter their future strategic attack programs at all. We think this unlikely, however, because it has been unnecessary for the Soviets to authorize any expensive new adjustments prior to an actual US decision. They must be aware of the favorable lead-time relationship referred to above, and they can be confident that major US decisions of this sort will be made public.

Effect on Specific Soviet Strategic Programs

7. In discussing the following Soviet options and possible courses of actions, we do not wish to imply that if the US does not decide to initiate either the Posture A or B program at this time, the Soviets will not undertake any of the programs discussed. In the strategic missile field, for example, there is always great pressure to advance the available technology through R&D and to deploy new systems and modifications designed to improve the effectiveness of the force. Specifically, the USSR is quite likely to develop and deploy more accurate large missiles with multiple warheads whether the US deploys ABMs or not. In general, we will probably never know the precise nature and extent of Soviet responses to a US decision to deploy, though we are convinced that such a decision would intensify Soviet arms programs in at least some ways.

8. There are a number of options the Soviets could exercise to preserve an assured destruction capability despite US ABM deployment. Certainly such deployment would generate some upward pressure on numbers of Soviet ICBMs and sublaunched missiles, and it is one

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of the factors which might cause the Soviet missile force to approach or exceed the high side of our ICBM estimate for the period beyond 1968 (i.e., 1,100 launchers in mid-1971, levelling off to 1,200 in mid-1976). Additional deployment of existing systems would have the advantage of using tooled-up lines and proven techniques. Long-continued deployment of the SS-9 and SS-11 at the recent high rates would result in ^{an} ICBM force of as many as 1,600 launchers in mid-1971 and more than 3,000 in mid-1976, virtually all of them hardened and dispersed.

9. On the other hand, the Soviets could respond with more sophisticated measures. If they took the decision soon, we believe they could begin to install very accurate multiple independent reentry vehicles (MIRVs) in their large SS-9 ICBM or in a follow-on, by about the time our ABM system could become operational. Existing or follow-on systems could be equipped with penetration aids by that time or sooner, depending on the type of such devices the Soviets decide are most effective against our ABM system. The USSR has not flight-tested advanced reentry

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vehicles as yet, but we believe such testing need not begin more than 2 or 3 years before initial operational capability date in the case of MIRV's, and 1 or 2 years in the case of penetration aids.

10. A US decision might also cause the Soviets to intensify their development of depressed-trajectory ICBM's or fractional-orbit bombardment systems. Several firings from Tyuratam in the past year have suggested feasibility testing of such systems, and we have estimated that if development is pursued, initial operational capabilities could be achieved by late 1967 or 1968. Such systems would probably be less accurate than ICBM's. Used in small numbers against key soft targets, they could evade US warning systems in a Soviet first strike, but they could also be intended to complicate US problems of developing effective AIM defenses.

11. Finally, the Soviets have the option of placing greater stress on aerodynamic vehicles as means of circumventing US AIM defenses. They could intensify their current program of constructing cruise-missile submarines (whose missiles can be used against ship or land targets), perhaps by decreasing planned construction of the new ballistic missile class we believe they

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have started to build. US deployment of AIMS might even lead them to develop a new manned bomber for intercontinental attack, though we doubt that they would put much reliance on this approach to assured destruction capabilities because of the vulnerability to attack of bombers on the ground.

12. Of the several options we have examined, the Soviets will choose whichever combination they judge to be most cost-effective in the light of the nature and pace of the US AIM program, regardless of whether our initial decision calls for Posture A or B. Retrofitting advanced reentry vehicles into existing systems might be the cheapest approach for the Soviets, though reliance on such modifications to assure penetration involves some risk. Additional deployment of existing systems, on the other hand, might prove a more visible increase in retaliatory power and therefore might appeal to the Soviets. In any case, we agree with the Secretary of Defense that the Soviets will act to maintain the deterrent of an assured destruction capability, and that they have the technical and economic power to do so.

Effect on Soviet AIM Program

13. The Soviets' own AIM program might also be affected by a US AIM decision, but in ways which are less readily definable.

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In general those Soviets who urge bigger, faster ABM development and deployment would speak with louder voices, if only because the US had adopted a similar program. A US decision in the near future might have greater pertinence in this respect if, as we in CIA believe likely, the USSR is now deploying an ABM system only at Moscow and has not yet begun to install such defenses at other locations.

14. In our recent estimates we have judged that, regardless of US ABM decisions, the Soviet predilection for strategic defense and the massive threat they see in the US strategic attack forces would probably cause the USSR to extend ABM defenses more widely during the next 10 years. We have allowed, however, for the possibility that the Soviets might decide that sufficient ABM deployment for the general defense of the USSR was too costly. We think the costs for the Moscow system alone will be the equivalent of at least \$3 billion (excluding R&D costs) over the eight years apparently required to deploy it, from 1962 to about 1970. Soviet willingness to spend such a sum is consistent with the high priority which has long been assigned to strategic defense and especially to the defense of Moscow. There is no question that

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the USSR could spend the equivalent of tens of billions more on future deployment of ABM defenses. But the Soviet economy is perennially stretched tight, and strains which might arise from still larger strategic expenditures could come to require the USSR to cut back on other desired military and economic programs.

A Smaller US ABM Program

15. The US could, of course, initiate an ABM program of much more modest character than either the Posture A or B programs. We think that the more general Soviet concerns we have described would also be elicited by smaller programs, because the Soviets would expect any US decision to lead eventually to larger-scale deployment. Certainly they would not believe that any US deployment was intended solely to counter the type of threat which might eventually be posed by China. But Soviet military responses would be tempered by the lesser impact of smaller programs on the Soviet strategic position. Indeed, there is at least some chance that the Soviets would see a program to defend US ICBM forces in a quite different light than they would view the Posture A and B programs, recognizing that it strengthened US assured destruction capabilities while posing no

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challenge to their own such capabilities. Thus a US program to defend its ICBMs might cause the least adjustment in Soviet strategic forces.

III. SOME POLITICAL IMPLICATIONS

16. The foregoing discussion of measures the Soviets would probably take to counter a major US ABM program forecasts very considerable exertions by them to prevent the US from increasing its margin of strategic advantage and reducing their capacity to deter. The net result would be to leave both sides with a high degree of deterrence, much like that which now obtains, though obviously in a much more complicated and costly weapons environment. While the power equation would thus not be altered, some significant political effects would flow from the process of raising it to a higher level.

17. The new round of competition in nuclear arms would have a negative effect on the climate of Soviet-American relations. The arms race is not only a consequence of the power competition, but a stimulus to it. The tensions which arise from fear that the opponent

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is moving to acquire a decisive advantage would be increased, and the still more complicated array of weapons on both sides would enlarge the obstacles to arms control and reduction.

18. This general result would not follow because the US decision to deploy ABMs would give rise to a sudden alarm on the Soviet side. The Soviets have known for a decade that we were working on ABMs, they have claimed successful development of such weapons themselves, and they would know that the US decision to deploy could not alter the relation of forces suddenly. The negative effect on the prospects for improvement in Soviet-American relations would be the result rather of keeping alive on both sides the sense of the inevitability of a continuing arms competition. Against this background the likelihood of the kind of small but meaningful political undertakings which could over time move Soviet-American relations in a constructive direction would be greatly reduced. Moreover, the elements within the Soviet leadership which reject the possibility of any fundamental detente in Soviet-American relations would probably gain in weight and influence.

19. The Soviet economy will in any event be under strains resulting from the presently foreseeable military programs. A new

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round of costly competition in arms expenditure would impose additional strains on the Soviet economy. This would be unlikely to cause a breakdown, but it would mean that other highly desired programs would have to be cut back or foregone. In particular, hopes for any significant improvement in living standards would have to be disappointed for some time longer. This would mean in turn an increase in tensions in the society generally and probably sharpened conflict within the leadership over the allocation of resources. While these tendencies would not in our view go so far as to bring a reversion to anything like "Stalinist" rule, at a minimum the prospects for further advance toward internal liberalization would be retarded. In general, the strains arising from intensified arms competition can, we believe, only have an adverse effect on such internal forces as do work for constructive and moderating change in the Soviet system.

SHERMAN KEET
Chairman, Board of National Estimates

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systems post to us, and thereby to escape from the deterrence of their present and growing threat. Either program would convey to the Soviets that we were not content to remain in a condition of mutual deterrence but were striving instead to gain a clear power advantage.

A second major judgment then follows. Faced with this situation, the primary Soviet concern would be to retain what we call an assured destruction capability, that is, the power to impose vast and unacceptable injury on this country regardless of the circumstances in which nuclear war might begin. The Soviets would therefore deploy ICBM's of such types and numbers as to insure retention of such a capability. In the end, after enormous costs to them and to us, the condition of mutual deterrence would be likely to obtain as before.

Finally, the political implications for Soviet society and for Soviet-American relations of such an intensification of the arms race seem to me to be of significant importance. The strains imposed by such an effort would at the very least retard what movement we have thought might be developing toward

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